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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,015	03/29/2001	Sandip Sarkar	000388	8358

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QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER	
LY, ANH VU H	

ART UNIT	PAPER NUMBER
2472	

NOTIFICATION DATE	DELIVERY MODE
10/04/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Office Action Summary	Application No.	Applicant(s)	
	09/823,015	SARKAR ET AL.	
	Examiner	Art Unit	
	ANH-VU H. LY	2472	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This communication is in response to Applicant's amendment filed 8/17/2010. Claims 1-21 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Razoumov et al (US Patent No. 6,771,700 B1). Hereinafter, referred to Razoumov.

With respect to claims 1 and 14, Razoumov discloses a transmitter (Fig. 1) comprising:

a processor operative to control a transmission and retransmission of data (Fig. 3, processor 308); and

a memory storage device operable for storing a plurality of computer-executable instructions to be executed by the processor (Fig. 1 illustrates a wireless communication system, represented by a base station 102 and remote station 104, communicating data over forward link 106 and reverse link 108. Herein, the base station 102 and the remote station 104 must include memory for storing instructions to be implemented in controlling data communications), comprising:

a first set of instructions for receiving a first transmission frame error rate and a retransmission frame error rate from a receiver (col. 7, lines 16-18 and Fig. 2, blocks 202 and 204, transmitting station adaptively evaluates feedback information from the receiving station);

a second set of instructions for determining a first transmission energy setpoint as a function of the first transmission frame error rate (col. 7, lines 20-23 and Fig. 2, E1 is evaluated as a function of FER) and the transmission quality (col. 7, lines 16-20, transmitting station adaptively evaluates feedback information received from the receiving station, e.g., attenuation, fading, number of multi-paths, velocity, and data rate); wherein the determination of the transmission energy setpoint is responsive to an update trigger (Fig. 2, ACK/NAK received in block 210); and

a third set of instructions for determining a retransmission energy setpoint as a function of the retransmission frame error rate (col. 7, lines 20-23 and Fig. 2, E2 is evaluated) and the retransmission quality (col. 7, lines 16-20, transmitting station adaptively evaluates feedback information received from the receiving station, e.g., attenuation, fading, number of multi-paths, velocity, and data rate), wherein the determination of the retransmission energy setpoint is responsive to the update trigger (Fig. 2, ACK/NAC received in block 210).

With respect to claims 2 and 15, Razoumov discloses that wherein the first transmission quality is measured by a received error indication signal (col. 3, lines 62-63, the transmitting station is alerted to the occurrence of frame errors at the receiving station).

With respect to claims 3 and 16, Razoumov discloses that wherein the first transmission energy setpoint and retransmission energy setpoint are determined as traffic to pilot ratios (col. 4, formula 1. Herein, the total transmission energy is a function of traffic to pilot ratio).

With respect to claims 4 and 17, Razoumov discloses that wherein the third set of instructions determines retransmission energy setpoint as function of retransmission frame error rate, retransmission quality, and the first transmission energy setpoint (col. 7, formula 22 and col. 7, lines 16-20, herein, energy E2 relates to FER1, E1, and channel conditions occur during transmission and retransmissions).

With respect to claim 5, Razoumov disclose that wherein the third set of instructions determines the retransmission energy setpoint by adding a delta value to the first transmission energy setpoint (col. 7, formula 22, E2 will equal to E1 plus f(E1)*E2).

With respect to claims 6 and 18, Razoumov discloses that in a wireless communication system (Fig. 1), a method comprising:

determining a first transmission energy setpoint to achieve a first transmission frame error rate in a first transmission of data (col. 4, lines 31-32, a transmitting station transmits information, contained in frames, with a first energy (E1). Herein, E1 will certainly yield a first transmission frame error rate);

adjusting (assuming that the limitation "continuously" is not part of the claim) the transmission energy setpoint on occurrence of a first transmission error (col. 4, lines 36-37, the

transmitting station selects a second transmission energy (E2). Herein, E2 is the adjusted first transmission energy setpoint) in the first transmission, wherein the first transmission error is received from a receiver (col. 4, lines 34-35, the receiving station reports the first FER1 and identity of those frames received in error back to the transmitting station);

determining a retransmission energy setpoint to achieve a retransmission frame error rate in a retransmission of the data (col. 4, lines 36-37, the transmitting station selects a second transmission energy (E2). Herein, E2 will certainly yield a retransmission frame error rate); and

adjusting the retransmission energy setpoint on occurrence of a retransmission error in the retransmission (col. 7, line 22, adjusted retransmission energy setpoint E3), wherein the retransmission error is received from the receiver (col. 4, lines 34-35, the receiving station reports the first FER1 and identity of those frames received in error back to the transmitting station).

With respect to claims 7 and 19, Razoumov discloses adjusting the retransmission energy setpoint as a function of transmission energy setpoint (col. 7, formula 22, energy setpoint E2 is adjusted based on E1 and its frame error rate).

With respect to claims 8 and 20, Razoumov discloses adjusting the retransmission energy setpoint to achieve a desired frame error rate for retransmission (col. 4, formula 2 and col. 7, formula 22 and 23).

With respect to claims 9 and 21, Razoumov discloses adjusting (assuming that the limitation "continuously" is not part of the claim) the first transmission energy setpoint to achieve a desired frame error rate for transmission (col. 6, formula 21).

With respect to claim 10, Razoumov discloses that wherein the first transmission frame error rate is greater than the retransmission frame error rate (col. 6, formula 21, herein, according to the formula, f(E1) is always greater than f(E2) for any applied numbers).

With respect to claim 11, Razoumov discloses that first wherein the transmission frame error rate and the retransmission frame error rate result in a desired total frame error rate (col. 4, formula 2).

With respect to claim 12, Razoumov discloses that wherein the first transmission frame error rate and retransmission frame error rate are predetermined values (col. 5, lines 5-7, any method of solving the equation 1 subject to a constraint requires the knowledge of a FER as a function of energy. Herein, requiring the knowledge of FER is an indication of a predetermined FER).

With respect to claim 13, Razoumov discloses that wherein the first transmission frame error rate and retransmission frame error rate are dynamic values (col. 4, formula 2. These values are dynamically changed as a function of transmit energies).

Response to Arguments

3. Applicant's arguments filed August 17, 2010 have been fully considered but they are not persuasive.

Applicant argues in page 7 that Razoumov discloses evaluating FER as a function of energy. Examiner respectfully disagrees. According to Fig. 2, in block 206, energies are evaluated according to the determined FER, block 202. As illustrated in Fig. 2, block 202 is performed before block 206. Therefore, the transmission energy setpoint is determined as a function of FER and not vice versa.

Applicant argues in page 8 that Razoumov fails to disclose repeatedly adjusting the first transmission energy setpoint on occurrence of a first transmission error and adjusting the retransmission energy on occurrence of a retransmission error. Examiner respectfully disagrees. As illustrated in Fig. 2, the energy setpoints are repeatedly adjusted such as the end of block 214 is fed back into block 210.

Applicant argues in page 8 that "not initial transmission setpoints being adjusted based upon the error outcome of initial transmissions and retransmission setpoints being adjusted based upon the error outcome of retransmissions. Examiner respectfully disagrees. The error outcome of initial transmissions are the error outcome of previous transmissions. There is no difference at all according to the claim language.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH-VU H. LY whose telephone number is (571)272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anh-Vu H Ly/
Primary Examiner, Art Unit 2472